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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,441	06/14/2001	Michael Keane	476-2037	6915

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BARNES & THORNBURG
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER	
HARPER, V PAUL	

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/881,441	KEANE ET AL.	
	Examiner	Art Unit	
	V. Paul Harper	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *11-13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 14-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/03/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Decision on the Appeal

1. The decision on appeal from the final rejection of claims 1 through 23 was made on 9/16/2004 with the result that the Examiner's rejection of claim 11 under 35 U.S.C. 5 102 and claim 13 under 35 U.S.C. 5 103 were affirmed. However, the Examiner's rejections of claims 1 through 10, 12, and 14 through 23 were reversed.

Information Disclosure Statement

2. The Examiner has considered the references listed in the Information Disclosure Statement dated 12/03/2004. A copy of the Information Disclosure Statement is attached to this office action.

Reopening Prosecution

3. In view of the information disclosure statement filed on 12/03/2004, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5, 7-9, and 14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Gray et al. (WO 01/93470 A1), hereinafter referred to as Gray.

Regarding **claim 1**, Gray discloses a method for testing the degree of degradation on signals transmitted over a communications link (abstract). Gray's method includes the following steps:

(i) receiving packets for the voice call and adding at least part of the stored test voice information to at least some of the packets (p.3, line 30 through p. 4, line 2; Fig. 2, frames. p. 7, lines 26-33);

(ii) forwarding the packets to the second node (p. 4, lines 1-4; at the receiver);

(iii) at the second node, accessing the stored test voice information at the second node and comparing it with the test voice information received in the packets using a speech quality assessment algorithm in order to obtain a measure of speech quality for the voice call (p. 4, lines 5-7; comparing the test signal with the reference signal; p. 7, line 20, reference signal stored permanently).

Regarding **claim 2**, Gray teaches everything claimed, as applied above (see claim 1). In addition, Gray teaches "some of the packets received at the first node comprise voice information associated with the voice call and others of those packets are associated with periods when speech is absent from the voice call (p. 3, lines 31-32) and wherein said step (i) further comprises identifying those packets which are associated with periods when speech is absent from the voice call and adding test voice information to one or more of those packets (p. 4, lines 1-2).

Regarding **claim 5**, Gray teaches everything claimed, as applied above (see claim 2); in addition Gray teaches "making an indication in a header of each of those packets to which test voice information is added" (Fig. 2, p. 8, lines 3-8, D1 may indicate a test signal).

Regarding **claim 7**, Gray teaches everything claimed, as applied above (see claim 1); in addition, Gray teaches "at the second node, identifying which of the packets comprise test voice information by determining whether a pre-specified identifier is

present in a header of each of the packets" (Fig. 2, p. 8, lines 3-8, D1 may indicate a test signal).

Regarding **claim 8**, Gray teaches everything claimed, as applied above (see claim 7); in addition, Gray teaches "the packets are forwarded from the first node to the second node via one or more other nodes which do not have access to information about the pre-specified identifier" (Fig. 1, p. 6, lines 21-22).

Regarding **claim 9**, Gray teaches everything claimed, as applied above (see claim 1); in addition, Gray teaches "said first and second nodes are located substantially at the edge of the communications network" (Fig. 1, p. 6, lines 19-22; test the entire path).

Regarding **claim 14**, Gray discloses a method for testing the degree of degradation on signals transmitted over a communications link (abstract). Gray's system includes the following:

(i) an input arranged to receive packets for the voice call (Fig. 1; items 10, 13, and 11; p. 6, lines 23-28); and

(ii) a processor arranged to add test voice information to one or more of the packets (Fig. 1, Assembler);

(iii) an output arranged to forward the packets towards the called party for comparison of the test voice information with the stored test voice information of the

called party to provide a measure of said speech quality (Fig. 1, p. 6, lines 23-28, transmission of the digital data over the link).

Regarding **claim 15**, Gray teaches everything claimed, as applied above (see claim 14). In addition, Gray teaches "some of the packets received at the input comprise voice information associated with the voice call and others of those packets are associated with periods when speech is absent from the voice call and wherein the processor is further arranged to identify those packets which are associated with periods when speech is absent from the voice call and add test voice information to one or more of those packets (Fig. 1, voice activity detector; p. 6, line 29 through p. 7, line 2; p. 8, lines 4-8; the payload can be indicated as a test signal).

Regarding **claim 16**, Gray discloses a system for testing the degree of degradation on signals transmitted over a communications link (abstract). Gray's system includes the following:

(i) an input arranged to receive packets as part of the voice call some of which comprise voice information associated with the voice call and some of which comprise received test voice information (Fig. 1, item 22; p. 4, lines 3-7);

(ii) stored test voice information (p. 7, line 20);

(iii) a processor arranged to compare the received test voice information and the stored test voice information using a speech quality assessment algorithm in order to obtain a measure of speech quality for the voice call (Fig. 1, item 26).

Regarding **claim 17**, this claim has limitations similar to those found in claims 14, 15, and 16 and is rejected for the same reasons.

Regarding **claim 18**, this claim has limitations similar to those found in claim 16 and is rejected for the same reasons.

Regarding **claim 19**, Gray discloses a method for testing the degree of degradation on signals transmitted over a communications link (abstract). Gray's method includes the following steps:

(v) receiving packets for the voice call (Fig. 1; items 10, 13, and 11; p. 6, lines 23-28);

(vi) adding test voice information to one or more of the packets (Fig. 1, Assembler);and

(vii) forwarding the packets towards the called party (Fig. 1, p. 6, lines 23-28, transmission of the digital data over the link);

(viii) at the called party node extracting the received test voice information and comparing it with stored test voice information at said called party node to provide a measure of said speech quality (Fig. 1, item 26; also p. 4, lines 3-7).

Regarding **claim 20**, this claim has limitations similar to claim 19 and is rejected for the same reasons.

Regarding **claim 21**, this claim has limitations similar to claim 16 and is rejected for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3, 4, 10, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Reynolds et al. (WO 02/03633 A1), hereinafter referred to as Reynolds.

Regarding **claim 3**, Gray teaches the digital transmission of speech information over a communications link (abstract), but Gray does not specifically teach "said packet-based communications network is an Internet protocol communications network." However, the examiner contends that this concept was well known in the art, as taught by Reynolds.

In the same field of endeavor, Reynolds discloses a method to assess the quality of voice communications over packet networks. In addition, Reynolds teaches that packet-based networks can include the Internet (p. 1, lines 26-32)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gray by specifically providing the features,

as taught by Reynolds, because it is well known in the art at the time of invention that in the near future the Internet will common communications link for voice (Reynolds, pl. 1, lines 26-33).

Regarding **claim 4**, Gray teaches everything claimed, as applied above (see claim 1). But Gray does not specifically teach "said voice call comprises a real-time transport protocol session between the first and second nodes." However, the examiner contends that this concept was well known in the art, as taught by Reynolds.

In the same field of endeavor, Reynolds discloses a method to assess the quality of voice communications over packet networks. In addition, Reynolds teaches the use of various communications protocols, including user the datagram protocol (a connectionless protocol) and others (p. 4, lines 2-7) where it would be obvious to include the real-time transport protocol in that collection.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gray by specifically providing the supported communications protocols, as taught by Reynolds, because these are standard communications protocols and the real-time transport protocol resides above the datagram protocol giving a higher priority to connectionless data, thus reducing the latency.

Regarding **claim 10**, Gray teaches everything claimed, as applied above (see claim 1), but Gray does not specifically teach "said speech quality assessment algorithm

is a PESQ algorithm." However, the examiner contends that this concept was well known in the art, as taught by Reynolds.

In the same field of endeavor, Reynolds discloses a method to assess the quality of voice communications over packet networks. In addition, Reynolds teaches that speech quality may be assessed using know perceptual analysis methods (which includes PSEQ algorithms) (p. 6, lines 30-32).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gray by specifically providing the features, as taught by Reynolds, because it is well known in the art at the time of invention that the perceptual algorithms are standard methods for evaluating quality.

Regarding **claims 22 and 23**, Gray teaches everything claimed, as applied above (see claim 21 and 20, respectively), but Gray does not specifically teach the use of a computer program stored on a computer readable medium." However, the examiner contends that this concept was well known in the art, as taught by Reynolds.

In the same field of endeavor, Reynolds discloses a method to assess the quality of voice communications over packet networks. In addition, Reynolds teaches the use of the method on various devices, including PC using computer readable media (p. 8, lines 16-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gray by specifically providing the features,

as taught by Reynolds, because it is well known in the art at the time of invention to be value to support a variety of architectures.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Reynolds and further in view of Tschudin ("Header hopping and packet mixers," Ninth Conference on Computer Communications and Networks, 2000, Oct. 2000), hereinafter referred to as Tschudin.

Regarding **claim 6**, Gray in view of Reynolds teaches everything claimed, as applied above (see claim 5). Furthermore Reynolds teaches "said packets are real-time transport protocol packets" (see claim 4 rejection). But Gray does not specifally teach "said indication is a payload value." However, the examiner contends that this concept was well known in the art, as taught by Tuschin.

In the same field of endeavor, Tschudin describes a steganographic protocol for packet switched networks where hidden information can be added to messages (abstract) and included in the header (p. 316, Introduction).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gray in view of Reynolds by specifically providing the features, as taught by Tuschin, because it is well known in the art at the time of invention for the purpose of transmitting addition unseen data (i.e., the test information does not interfere with the voice data) during the normal transmission of voice data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is 703 305-4197. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2/03/2005

V. Paul Harper
Examiner
Art Unit 2654

V. Paul Harper

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER